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MEMORANDUM OF MEASURES APPLIED DURING THE SPRING OF 1940 TO CONTROL THE CYLINDROCOPTURUS WEEVIL IN THE BIG SPRINGS PLANTATION

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BERKELEY, CALIFORNIA
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MEMORANDUM OF MEASURES APPLIED DURING THE SPRING OF 1940 TO CONTROL THE CYLINDROCOPTURUS WEEVIL IN THE BIG SPRINGS PLANTATION

As a result of studies made during the summer of 1939, the Forest Insect Laboratory at Berkeley was able to recommend last fall measures to control the infestation of the Cylindrocopturus species weevil in the pine plantation in the Big Springs Brushfield, Lassen National Forest, California. In the light of information obtained from these studies, the eradication of infested trees seemed to be the only feasible means of attempting to control this insect, the expectation being that a reduction in the weevil population, and a corresponding decrease in injury would result.

Action was taken on the recommendations during the middle of April, prior to the emergence of the 1940 brood. With the help of CCC enrollees from the Hat Creek Camp, under the supervision of the writer and one agent of the Berkeley Station, the entire plantation at Big Springs, consisting of approximately 1,000 acres, was examined and all infested trees uprooted and burned. Twenty-five enrollees and one foreman in addition to the two entomologists on the job, were available for this work. The estimated 130 miles of planted rows were covered, and the infested trees destroyed in two and one-half days by this crew. It is expected that an administrative report covering the number of man-days, etc., spent on this job will be submitted by the local forest officers.

Due to the spotted distribution of infested trees outside the area of intensive damage (the 1933 and 1934 plantings), the marking of every tree for removal was considered impractical. Last season's studies showed that fading or red trees in the plantation were infested almost invariably; furthermore frequent checks on the condition of trees injured to varying degrees have shown that practically all trees which contained broods were fading or entirely red early this spring. After a brief period of instruction the CCC enrollees were able to recognize weevil-killed trees, and if periodically checked, it was found that they passed over very few.

The enrollees were organized in two-man crews, one man to dig up the trees and the other to carry them along until a sufficient number were brought together to warrant a fire. Mattocks proved to be superior to shovels for digging up the trees due to the extensive root systems developed by some of the larger individuals. Checking was accomplished by the two entomologists and the foreman, while two CCC leaders were variously used as checkers and fire tenders. The procedure which finally worked out to be the best was to start all the crews together at one end of the brushfield, and work through a series of rows to the other end where the various crews were held up until all had come through. While this system reduced the speed of the job to the speed of the slowest men, it facilitated checking, and improved the thoroughness of the work.

Just how much has been accomplished by this control job, in terms of protection afforded the younger plantings, remains to be seen. To this end a systematic survey is planned for the plantation late this fall to determine how many trees are killed during the 1940 season. The examinations this spring have strengthened the writer's opinion that, while the older plantings in the center of the brushfield have been pretty well cleaned out, the extensive plantings of 1937 have not been greatly affected. Continuation of weevil damage, even though to a much lesser degree, may necessitate the establishment of a program of maintenence control for the next few years. However the setting up of any subsequent plan of action against this insect must necessarily await the outcome of the present operation.

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